

Amendments to the Claims:

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

- 1-8. (Cancelled)
9. (New) Catalyst for water electrolysis, comprising iridium oxide and an inorganic oxide, wherein the inorganic oxide has a BET surface area in the range of 50 to 400 m²/g and is present in a quantity of less than 20 wt.% based on the total weight of the catalyst.
10. (New) Catalyst according to claim 9, further comprising ruthenium oxide in an amount resulting in an Ir / Ru-atomic ratio in the range of 4 / 1 to 1 / 4.
11. (New) Catalyst according to claim 9, wherein the inorganic oxide is selected from the group of titania (TiO₂), silica (SiO₂), alumina (Al₂O₃), zirconia (ZrO₂), tin dioxide (SnO₂), ceria, niobium pentoxide (Nb₂O₅) tantalum pentoxide (Ta₂O₅) and/or combinations thereof.
12. (New) Catalyst according to claim 10, wherein the inorganic oxide is selected from the group of titania (TiO₂), silica (SiO₂), alumina (Al₂O₃), zirconia (ZrO₂), tin dioxide (SnO₂), ceria, niobium pentoxide (Nb₂O₅) tantalum pentoxide (Ta₂O₅) and/or combinations thereof.
13. (New) Catalyst according to claim 9, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.
14. (New) Catalyst according to claim 9, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.05 g/l at 20 °C.

15. (New) Catalyst according to claim 10, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.
16. (New) Catalyst according to claim 11, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.
17. (New) Catalyst according to claim 9, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.
18. (New) Catalyst according to claim 10, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.
19. (New) Catalyst according to claim 11, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.
20. (New) Catalyst according to claim 12, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.
21. (New) Process for the manufacture of the catalyst according to claim 9 comprising the steps:
 - a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and
 - b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,
 - c) separating and drying the catalyst,
 - d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.

22. (New) Process for the manufacture of the catalyst according to claim 10 comprising the steps:
- a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and
 - b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,
 - c) separating and drying the catalyst,
 - d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.
23. (New) Process for the manufacture of the catalyst according to claim 11 comprising the steps:
- a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and
 - b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,
 - c) separating and drying the catalyst,
 - d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.
24. (New) Process for the manufacture of the catalyst according to claim 12 comprising the steps:
- a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and

- b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,
 - c) separating and drying the catalyst,
 - d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.
25. (New) Use of the catalyst according to claim 9 as anode catalysts in electrodes, catalyst-coated membranes (CCMs) and membrane-electrode-assemblies (MEAs) for PEM water electrolyzers.
26. (New) Use of the catalyst according to claim 9 in regenerative fuel cells (RFC), sensors, electrolyzers and other electrochemical devices.
27. (New) An article of manufacture comprising the catalyst according to claim 9 as an anode catalyst in an electrode.
28. (New) A membrane (CCMs) coated with the catalyst according to claim 9.
29. (New) A membrane-electrode assembly (MEAs) for REM water electrolysis containing the catalyst according to claim 9.
30. (New) An article of manufacture selected from the group consisting of a regenerative fuel cell (RFC), a sensor and an electrolyser containing the catalyst according to claim 9.